ANHUI FEICHUN SPECIAL CABLE CO., LTD.

安徽飞纯特种电缆有限公司

PROTOLON (M) F-(N)TSWOEU

MEDIUM VOLTAGE FLEXIBLE CABLE | 1.8/3 KV

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CABLE APPLICATIONS

Designed for laying alongside conveyor belts, including shiftable units, and on material handling equipment with continuous movement such as in cable booms or as connections between upper and lower cars. Suitable for connection of submersible pump units. This medium voltage flexible cable is engineered for semi-flexible installation in demanding industrial environments.

TECHNICAL SPECIFICATIONS

PARAMETER	VALUE	UNIT
Model	**PROTOLON (M) F-(N)TSWOEU 1.8/3KV**	–
Basic Construction	**3x70**	mm²
Conductor Diameter	10.8	mm
Cable Diameter (min)	42.1	mm
Cable Diameter (max)	45.1	mm
Cable Weight	3,770	kg/km
Max. Tensile Strength	**3,150**	N
Nominal Operation Capacitance	510	nF/km
Operation Self Inductance	0.28	mH/km
Conductor Resistance at 20°C	0.272	Ω/km
Current Carrying Capacity	**250**	A

THERMAL PARAMETERS

MAX. CONDUCTOR TEMPERATURE
90 °C

MAX. CONDUCTOR TEMP. (SHORT CIRCUIT)
250 °C

AMBIENT TEMP. FIXED INSTALLATION (MIN)
-40 °C

AMBIENT TEMP. FIXED INSTALLATION (MAX)
80 °C

AMBIENT TEMP. FLEXIBLE INSTALLATION (MIN)
-25 °C

AMBIENT TEMP. FLEXIBLE INSTALLATION (MAX)
60 °C

ELECTRICAL PARAMETERS

RATED VOLTAGE U_0/U (UM)

1.8/3 (3.6) kV

TEST VOLTAGE

11 kV

CHEMICAL PARAMETERS

FLAME RETARDANT

EN/IEC 60332-1-2

OIL RESISTANT

IEC/EN 60811-404

OZONE RESISTANCE

Yes

UV RESISTANCE

Yes

SEA WATER RESISTANCE

Excellent

MAX. WATER DEPTH

10 m

MECHANICAL PARAMETERS

TORSIONAL STRESS

±100 °/m

PERMANENT TENSILE STRENGTH (RULE)

15 N/mm²

BENDING RADIUS (FIXED INSTALLATION)

6 × D (VDE 0298-3)

BENDING RADIUS (FLEXIBLE OPERATION)

10 × D (VDE 0298-3)

STANDARDS / APPROVALS

DIN VDE 0250-813

General

DIN VDE 0298-4

Electrical Parameters

DIN EN 60811-404

Chemical Behaviour

IEC 60811-404

Chemical Behaviour

DIN EN 50525-2-21

Chemical Behaviour

DIN EN 60332-1-2

Fire Performance

CABLE CONSTRUCTION DETAILS

1 **Conductor**
Finely stranded copper, bare, class 5

2 **Inner Semi-conducting Layer**
Semi-conductive EPR

3 **Core Insulation**
EPR rubber PROTOLON HS Special compound 3GI3

4 **Core Arrangement**
Three main conductors laid-up

5 **Inner Sheath**
Rubber Special EPR compound GM1b

6 **Outer Sheath**
Chlorinated polyethylene (CM/CPE) Special compound 5GM3

